Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal Form

Section 1. General administrative information

Southern Idaho Wildlife Mitigation

Bonneville project number, if an ongoing project 9505700

Business name of agency, institution or organization requesting funding
Idaho Department of Fish and Game; Shoshone-Bannock Tribes

Business acronym (if appropriate) IDFG; SBT

Proposal contact person or principal investigator:

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Subcontractors. List one subcontractor per row; to add more rows, press Alt-Insert from within this table

Organization	Mailing Address	City, ST Zip	Contact Name
Idaho Department of Fish and Game and The Shoshone-Bannock Tribes are JOINT SPONSORS			Jerome Hansen AND Chad Colter
Bureau of Land Management	1405 Hollipark Drive	Idaho Falls, ID 83401-2100	Joe Kraayenbrink

NPPC Program Measure Number(s) which this project addresses.
11.2D1, 11.2E.1, 11.3D.4, 11.3D.5, 11.3D.7, 11.3D.8

NMFS Biological Opinion Number(s) which this project addresses.

NA

Other planning document references.

If the project type is "Watershed" (see Section 2), reference any demonstrable support from affected agencies, tribes, local watershed groups, and public and/or private landowners, and cite available documentation.

The following document refers to need to mitigate for hydropower impacts.

- Bonneville Power Administration Wildlife Mitigation Program Final Environmental Impact Statement (BPA 1997)

The following documents support the need to protect habitat in the South Fork Snake Project Area.

- FS/BLM Snake River Activity/Operations Plan (1991)
- USFWS Pacific Bald Eagle Recovery Plan (1986)
- Idaho Department of Water Resources South Fork Basin Plan (1997)
- Idaho Department of Water Resources Henrys Fork Basin Plan (1991)
- Targhee National Forest Plan (USFS 1997)
- Conservation Strategy for Southeast Idaho Wetlands (Jankovsky-Jones 1997b)

The following document supports the need to protect wetland habitat in Camas Prairie

- Conservation Strategy for Big Wood River Basin Wetlands (Jankovsky-Jones 1997*a*)

The following documents support protection of wildlife habitat in the Boise Foothills

- Ada County Land Use Plan
- 1997 Boise City Comprehensive Plan
- Draft Boise Foothills Plan

Documents supporting the protection and restoration of habitat in southern Idaho

- BLM Resource Management Plans (Medicine Lodge RA, Pocatello RA
- Bureau of Land Management Shoshone Resource Area
- Bureau of Land Management Bruneau Resource Area
- Bureau of Land Management Cascade Resource Area

Each of the following plans recognize that the federal hydropower system has impacted wildlife habitat in Idaho and calls for mitigation of the net losses:

- IDFG 5 Year Mule Deer Plan (Scott et al. 1991)
- IDFG 5 Year Nongame Plan (Groves and Melquist 1991)
- IDFG 5 Year Upland Game Plan (Smith et. al. 1990)
- IDFG 5 Year Waterfowl Plan (Connelly and Wackenhut 1990)
- A Vision for the Future: IDFG Policy Plan 1990-2005 (IDFG 1991)

Subbasin.

Upper Snake River Basin (Above Hells Canyon Dam)

Short description.

Protect, enhance, and maintain important wildlife habitats in southern Idaho as on-going mitigation for Palisades, Minidoka, Anderson Ranch, and Black Canyon hydroelectric projects. Activities will be consistent with the Wildlife Mitigation EIS (BPA 1997).

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
	Anadromous fish		Construction		Watershed
	Resident fish		O & M		Biodiversity/genetics
X	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research		Ecosystems
	Climate		Monitoring/eval.		Flow/survival
	Other		Resource mgmt		Fish disease
			Planning/admin.		Supplementation
			Enforcement	X	Wildlife habitat en-
		X	Acquisitions		hancement/restoration

Other keywords.

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
9505700	South Fork Snake/Sand Creek	Incorporated into 9505700, Southern Idaho Wildlife Mitigation
5519200	Remaining Palisades	Incorporated into 9505700, Southern Idaho Wildlife Mitigation
9206000	Camas Prairie/Anderson Ranch	Incorporated into 9505700, Southern Idaho Wildlife Mitigation
5501400	Black Canyon/Bruneau	Incorporated into 9505700, Southern Idaho Wildlife Mitigation
5501700	Minidoka	Incorporated into 9505700, Southern Idaho Wildlife Mitigation

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2, 3	Objective	Task a,b,c	Task
1	Provide 18,223 Habitat Units (HU) through the protection and enhancement of a combination of 16,216 acres of the highest priority native riparian, wetland and upland habitats in southern Idaho, by September 2003. The FY 1999 goal is 4,146 HU and 3,689 acres of high priority habitat.	a	Complete federal compliance requirements (e.g., cultural resources, hazardous materials, appraisals)
		b	Secure conservation easements and fee-titles and/or provide cost-share funding to other projects
		c	Conduct baseline surveys
		d	Credit HU in Inter-Governmental Contract with BPA
		e	Develop management plans
		f	Consult and coordinate throughout process with NWPPC, BPA, CBFWA, interagency teams of biologists, local governments, and public.
		g	Implement enhancement actions as outlined in management plan
2	Maintain HU's provided in Objective 1 in perpetuity.	a	Using O&M guidelines prepared by the CBFWA Wildlife Caucus, apply appropriate maintenance activities to mitigation sites to protect HU provided through protection and enhancement actions.
		b	Implement monitoring and evaluation program
		c	Adapt management plan as needed
		d	Coordinate and consult throughout process as under Objective 1.

Objective schedules and costs

	Start Date	End Date	

Objective #	mm/yyyy	mm/yyyy	Cost %
1	10/1998	09/2003	80%
2	10/1998	09/2003	20%

Schedule constraints.

Critical constraints include funding stability over time, changes in land values, and the availability of willing sellers in the primary mitigation focus areas having the highest potential to provide significant, long-term biological benefits and appropriate mitigation for wildlife losses at individual hydroelectric projects.

Completion date.

Implementation is expected to be completed in 2010; however, O&M costs will be required beyond 2010.

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel	Includes both IDFG and Shoshone-Bannnock personnel.	125,900
Fringe benefits	30 percent	37,770
Supplies, materials, non-expendable property	Includes misc. supplies, costs for appraisals, surveys etc.	86,000
Operations & maintenance	Includes management activities on existing Palisades mitigation parcels.	150,000
Capital acquisitions or improvements (e.g. land, buildings, major equip.)	Includes funds for easements, fee-title acquisitions, and enhancements.	3,019,975
PIT tags	# of tags:	
Travel		5,500
Indirect costs	Overhead @ 21.3 percent	86,301
Subcontracts		
Other		
TOTAL		3,511,446

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	3,230,970	2,857,976	3,500,000	3,500,000
O&M as % of total	17%	20%	23%	26%

Section 6. Abstract

Protect, enhance, and maintain native riparian, wetland, and shrub-steppe habitats in southern Idaho as on-going mitigation for Palisades, Anderson Ranch, Minidoka, and Black Canyon hydroelectric projects (NWPPC Program Measures 11.2D.1, 11.2E.1, 11.3D.4, 11.3D.5, 11.3D.7, and 11.3D.8). The overall objective is to provide 18,223 Habitat Units (HU's) by acquiring fee-title or easements and enhancing a combination of 16,216 acres of priority habitats, through the year 2003. The specific FY1999 objective is to provide 4,146 HU by the protection/enhancement of 3,689 acres.

Potential mitigation sites in southern Idaho were initially prioritized by interagency teams of biologists in the mid 1980's, who considered biological significance, applicable references (Boccard 1980), in-place/in-kind opportunities, and juxtaposition to other management areas. The original list of mitigation sites continues to guide mitigation implementation, with the addition of new information from more contemporary conservation site planning in Idaho, including wetland conservation strategies (Jankovsky-Jones, 1997a,b) and the recent Nature Conservancy/Idaho Department of Fish and Game process to identify a set of biodiversity conservation reserves in the Columbia Plateau ecoregion using GAP Analysis Program cover types as coarse filter targets (Moseley, pers. comm.). Each individual mitigation parcel is subjected to the CBFWA regional wildlife criteria by the interagency teams of biologists to ensure that it meets regional wildlife program standards.

Progress will be monitored by measuring standardized target species habitat variables from Habitat Evaluation Procedure (HEP) models (USFWS 1980). Target species population trends also will be monitored to evaluate long-term species-habitat relationships.

Section 7. Project description

a. Technical and/or scientific background.

The human ecology of the Pacific Northwest has been and continues to rely heavily on the Columbia River system. The development of the Columbia River Basin has provided many modern, social benefits such as hydropower, irrigation, and flood control. These benefits, however, also came with many social costs that were largely ignored for decades. A free-flowing river became a series of reservoirs. The historic salmon and steelhead runs became sparse. The timing and intensity of natural water flows were altered. Riparian corridors and adjacent uplands were inundated. Perhaps most important, yet least understood, were the cumulative impacts on both terrestrial and aquatic systems.

Other land use activities also have impacted native wildlife habitat in the Columbia Basin over the last 100-200 years. Since the 1860's, when mining and farming boomed, wetlands in Idaho have decreased 56%, from about 879,000 acres to approximately

386,000 acres (Dahl 1980). The Interior Columbia Basin Ecosystem Management Project basin-wide analysis of riparian vegetation noted significant changes, including widespread declines of shrublands in riparian zones (USFS 1996). Cottonwood, aspen, and willow, typical riparian-associated species, significantly decreased in the Snake River Headwaters and the Columbia Plateau.

Substantial declines in native grasslands and shrublands, mostly on non-federal lands, also have been documented (USFS 1996). Within the Columbia Basin, many wildlife species have declined because of the changes and loss of native shrublands and grasslands, including Columbian sharp-tailed grouse, sage grouse, loggerhead shrike, pygmy rabbit, white-tailed antelope squirrel, California bighorn sheep, and Washington and Idaho ground squirrels. The current extent of shrub-steppe and grassland protection in Idaho is low (Caicco et al. 1995) but is a high priority in the 1996-2000 Idaho Sage Grouse Plan (IDFG 1996). Neotropical migrants, whose populations are declining globally, also would benefit from conservation and restoration of riparian, old forest, shrub-steppe, grassland, and juniper habitats (USFS 1996).

Although the obvious cost of the hydropower system was the impact on wild salmon and steelhead runs, the cumulative impacts to wildlife also were recognized. As a result of the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Public Law 96-501), the Northwest Power Planning Council (NWPPC) passed the Columbia River Basin Fish and Wildlife Program (FWP) to addresses these impacts and to ensure that wildlife receive equitable treatment in matters concerning the hydropower system. The goal of the FWP wildlife strategy is "to achieve and sustain levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by construction and operation of the federal and non-federal hydroelectric system" (Sec. 11.1, 1995 Amendments).

In southern Idaho, four federal projects, including Minidoka, Black Canyon, Anderson Ranch, and Palisades, inundated a total of 36,405 acres of wildlife habitat. Using the standardized Habitat Evaluation Procedure (HEP), a measure of both the quality and quantity of wildlife habitat (USFWS 1980), biologists estimated a net loss of 54,292 habitat units (HU's) for a variety of target species. The Southern Idaho Wildlife Mitigation Project is designed to mitigate those losses, in addition to protecting and enhancing critical habitat for a wide variety of species depending on riparian, wetland, and shrub-steppe habitats. In conjunction with the NWPPC and CBFWA's Wildlife Caucus criteria for ranking wildlife projects, most projects are in-place, in-kind mitigation and all have addressed HU for target species (see Table 11-4 in NWPPC 1995; USFWS 1980). Each of the four facilities will be addressed separately in this section for clarity.

Palisades

Palisades Dam was completed in 1958, impacting 18,565 acres of wildlife habitat (Chaney and Sather-Blair 1985*c*) and Sather-Blair and Preston (1985) estimated a net loss of 37,068 HU. The *Wildlife Protection, Mitigation, and Enhancement Plan: Palisades Project* (Martin and Hansen 1986) outlined priorities for mitigation, and the Wildlife Caucus ranked the proposed South Fork Snake River as one of the highest-priority

mitigation projects for the Columbia Basin.

The riparian habitats along the South Fork Snake River represent one of the largest remaining cottonwood systems in the western U.S. and provides habitat for many wildlife species and for a native cutthroat trout population.. The South Fork and Upper Snake was ranked as the most important fish and wildlife habitat in Idaho (Boccard 1980) and as the highest-priority coarse filter target (seasonally/temporarily flooded cold deciduous forest) for protection within the Columbia Plateau Ecoregion (B. Moseley, IDFG, pers. comm.).

The primary threat to these cottonwood systems is recreational home development spilling over from the Jackson Hole, Wyoming, and Yellowstone area fragmenting the riparian corridor, increasing human disturbance, thus losing bald eagle breeding and wintering habitat. Although much of the river corridor is currently managed by Bureau of Land Management (BLM), several key riparian parcels will imminently be subdivided if they are not protected through this program (B. Martin, IDFG, pers. comm.). A number of unprotected parcels are likely to become available for acquisition or easement within the next several years (K. Ragotzkie, IDFG, pers. comm.).
Existing shrub-steppe, that provides food and cover for big game, sage grouse, and sharp-tailed grouse, is steadily declining. Considering the projected population growth in Idaho in the next decade (Idaho Division of Financial Management 1997), it is critical to protect and enhance the remaining shrub-steppe.

The Southern Idaho Wildlife Mitigation Project is designed to protect, enhance, and maintain river and riparian corridors and shrub-steppe habitat. Focus areas for protecting river and riparian corridors include the South Fork, Henrys Fork, and Upper Snake Rivers. Focus areas for protecting shrub-steppe include the Tex Creek and Soda Springs Hills mitigation project areas, with additional opportunities in Sand Creek and Fort Hall Bottoms. In addition to the target species, many wildlife species will benefit from mitigation, including moose, elk, deer, river otters, trumpeter swans, and neotropical songbirds. The newly-discovered, listed threatened plant,*Spiranthes diluvialis*, may also benefit. All projects will provide in-kind mitigation.

Anderson Ranch
Anderson Ranch Dam was completed in 1950, inundating 4,740 acres of wildlife habitat along the South Fork Boise River (Chaney and Sather-Blair 1985*a*). Martin and Ablin-Stone (1986) estimated a net loss of 9,620 HU. The mitigation plan (Meuleman et al. 1987) listed the proposed Hill City Marsh (Camas Prairie) as a high-priority area, and the Wildlife Caucus ranked the Camas Prairie as a regional, high-priority area in 1993.

The Camas Prairie is a mosaic of high prairie and sagebrush steppe with desert springs and wet meadows along meandering creeks. About 25 species of plants and animals with special status occur in the area (Conservation Data Center 1994). The marsh is an important stopover for migratory birds and the prairie is a major staging area for over 25 species of raptors (USBLM 1994). Much of the prairie and marsh has been converted to agriculture, the creek's waters rechanneled and diverted for irrigation, and the creek banks

damaged by livestock concentration (USBLM 1994). Resident fish have been absent from upper Camas Creek for the last few decades (B. Williams, landowner, pers. comm.). Over 3,000 acres of wetlands, approximately 14 miles downstream from the headwaters, already are protected in the Centennial Marsh WMA. However, activities upstream impact the protected area.

The mosaic of sagebrush steppe, aspen groves, and chokecherry thickets of upper Camas Creek and the Bennett Hills functions as a high-value birthing and foraging area for big game but has deteriorated from past and current land uses. When protected and enhanced, the area also will provide excellent habitat for sharp-tailed grouse, mountain quail, and neotropical migrants. Upper Camas Creek currently is being considered as a release site for re-establishing sharp-tailed grouse populations (T. Hemker, IDFG, pers. comm.).

The Camas Prairie and Bennett Hills are about to undergo tremendous change. Camas County was the 45th fastest growing county in the U.S. in 1994-1995 (U.S. Bureau of the Census 1995). Fairfield and surrounding areas are catching the overflow from the Wood River Valley (Sun Valley) boom and offers a relatively cheaper county/town in which to live in close proximity to Sun Valley (approximately 50 road miles). Two wealty movie stars recently bought a local ski area and have initiated some speculation and increased land values.

We have concentrated mitigation efforts on the 14-mile stretch between Centennial Marsh WMA and the headwaters (in-kind, in-place). Mitigation activities upstream would significantly improve water flows through the marsh as well as restore wildlife habitat along the creek corridor. In addition to the target species, mitigation will benefit numerous species of waterfowl, shorebirds, passerines, raptors, gallinaceous birds, herps, and several rare plant species (Jankovsky-Jones 1997*a*). Another tremendous benefit of this project is the opportunity to restore high-quality, spring-fed, native trout habitat in Camas Creek.

Black Canyon

Black Canyon Dam was completed in 1924, impacting 1,100 acres of wildlife habitat along the Payette River (Chaney and Sather-Blair 1985*b*). The impact assessment reported an estimated net loss of 2,230 HU (Martin and Ablin-Stone 1986). The mitigation plan was completed in 1987, with the Bruneau River project listed as the highest priority (Meuleman et al. 1987).

Since completion of the mitigation plan, growth of Boise City has generated a great deal of concern relative to future protection of open space and wildlife habitat on the Boise Foothills. The Boise Foothills, adjacent to Boise, are under immediate threat from home development -- 10,000 additional homes are planned in the Foothills. The Foothills are home to a great diversity of bird, mammal, and herp species, and provides an ever-shrinking critical big game winter range (much of which severely burned in 1996). Several species of raptors migrate through the area. Bald eagles winter along the Boise River and feed in the adjacent Foothills (Kaltenecker et al. 1994). There also are several rare,

endemic plants in the Foothills such as Aase's onion (Mancuso 1996). A portion of the foothills already is protected in the Boise River WMA.

Because the Boise Foothills are much closer to the Black Canyon site than the Bruneau River (thus in-place, in-kind) and because there is immediate threat and high public interest, the Boise Foothills are the highest priority for Black Canyon mitigation. The goal of the mitigation efforts in the Foothills are to (1) facilitate a land exchange between the U.S. Forest Service, the IDFG, and the Idaho Department of Lands to block up lands for better management, (2) to work with other agencies, local governments, and local landowners to acquire fee-title or easements on the highest priority habitat parcels, and (3) to enhance the mitigation parcels through plantings and modified land use patterns.

Minidoka

Construction of Minidoka Dam was completed in 1909, impacting over 12,000 acres of wildlife habitat along the Snake River (Martin and Mehrhoff 1985). The impact assessment reported an estimated net loss of 5,374 HU (Martin and Meuleman 1989). The mitigation plan was completed in 1991, with the two preferred projects eing riparian/river protection and enhancement and the South Hills shrub-steppe protection and enhancement (Meuleman et al. 1991).

A habitat enhancement project, that would begin to address the sage grouse and mule deer losses from Minidoka, has been approved for the Cottonwood WMA. The area to be enhanced with native grass and shrub plantings is former cropland. California bighorn sheep also will benefit from this project. Additional riparian and shrub-steppe habitat will be protected and enhanced through 2003.

b. Proposal objectives.

Objective 1. Provide 18,223 HU by protecting and enhancing a combination of 16,216 acres of priority riparian, wetland, and shrub-steppe habitats through September 2003. Will benefit a variety of target wildlife species, including mallard, mink, yellow warbler, black capped chickadee, ruffed grouse, blue grouse, sharp-tailed grouse, sage grouse, elk/mule deer, Canada goose, ring-necked pheasant, bald eagle, and river otter.

Specific FY Objectives:

FY 1999 - Provide 4146 HU by protecting/enhancing 3689 acres
FY 2000 - Provide 3682 HU by protecting/enhancing 3276 acres
FY 2001 - Provide 3139 HU by protecting/enhancing 2794 acres
FY 2002 - Provide 3700 HU by protecting/enhancing 3293 acres
FY 2003 - Provide 3556 HU by protecting/enhancing 3164 acres

Objective 2. Maintain the HU provided in Objective 1 through annual management actions that follow the CBFWA Wildlife Caucus Operation and Maintenance (O&M) Guidelines.

c. Rationale and significance to Regional Programs.

The goal of the Wildlife Section of the NWPPC FWP is to "achieve and sustain levels of habitat and species productivity as a means of fully mitigating wildlife losses caused by construction and operation of the federal and non-federal hydroelectric system." (Sec. 11.1, 1995 Amendments).

The specific objectives of the Southern Idaho Wildlife Mitigation Project are to (1) provide 18,223 HU toward that goal by protecting and enhancing 16,216 acres of high-priority riparian, wetland, and shrub-steppe habitats, and (2) maintain those HU through appropriate O&M activities. These objectives also meet the preferred alternative (a balanced approach to mitigation) in the Bonneville Power Administration Wildlife Mitigation Program Final Environmental Impact Statement (BPA 1997).

During the project period, we will coordinate closely with the Snake River Native Salmonid Assessment Project (FWP Proj. #9800200) to identify areas of southern Idaho where cost-efficiencies can be realized by combining resident fish and wildlife program activities. We also are dove-tailing with other regional efforts, including the Interior Columbia Basin Ecosystem Management Project (USFS 1996), U. S. Bureau of Reclamation's Snake River Resources Review, and upcoming FERC relicensing of Idaho Power Company hydroelectric facilities.

d. Project history

This project proposal, Project No. 9505700 (Southern Idaho Wildlife Mitigation), historically was two funded projects, Project No. 9505700 (South Fork/Sand Creek), and Project No. 9206000 (Camas Prairie - Anderson Ranch) and three unfunded projects, Project No. 5519200 (Remaining Palisades), Project No. 5501700 (Minidoka), and Project No. 5501400 (Black Canyon). The Southern Idaho Wildlife Mitigation became effective on January 1, 1997, and covers wildlife mitigation activities related to Anderson Ranch, Black Canyon, Minidoka, and Palisades. We combined these four facilities to increase flexibility in implementing the protection, mitigation, and enhancement plans (Meuleman et al. 1991, Meuleman et al. 1987, Martin and Hansen 1986). However, each of the four facilities will be addressed seperately in this section for clarity.

Palisades

Palisades Dam was completed in 1958, impacting 18,565 acres of wildlife habitat (Chaney and Sather-Blair 1985c). The impacts were assessed using HEP (USFWS 1976), and Sather-Blair and Preston (1985) estimated a net loss of 37,068 HU at Palisades. The *Wildlife Protection, Mitigation, and Enhancement Plan: Palisades Project* (Martin and Hansen 1986) outlined priorities for mitigation, and the Wildlife Caucus ranked the proposed South Fork Snake River as one of the highest-priority mitigation projects for the Columbia Basin. The *South Fork Snake River Programmatic Management Plan* (Martin and Hansen 1993) was completed in 1993 and a Final Environmental Assessment for the project was released in October, 1995 (Bonneville Power Administration 1995). The proposed Remaining Palisades Mitigation Project was incorporated into the FWP in 1995.

The Final EA and FONSI for South Fork Snake River/ Palisades Wildlife Mitigation were released in 1995 (DOE EA #0956). Progress reports have been submitted to BPA since 1995 and now are combined within the Southern Idaho Wildlife Mitigation progress reports.

A total of 4,167 HU have been credited to Palisades wildlife mitigation, and an additional 11,081 HU are anticipated to be credited during FY 1998 or FY 1999: Target species benefited include bald eagles, mule deer/elk, ruffed grouse, mink, mallard, Canada goose, yellow warbler, black-capped chickadee.

- Winterfeld conservation easement, 383 HU, 422 acres
- Kruse conservation easement, 814 HU, 800 acres
- Kinghorn I acquisition, 317 HU, 140 acres
- Kinghorn II acquisition, 901 HU, 310 acres
- Noxious weed project, 499 HU, up to 10,000 acres enhanced
- Payne acquisition, 1,254 HU, 2135 acres
- Soda Hills (in progress), 3,926 HU, 2582 acres
- South Fork/Henrys Fork (in progress), 7,155 HU, 2600 acres

Anderson Ranch

Anderson Ranch Dam was completed in 1950, inundating 4,740 acres of wildlife habitat along the South Fork Boise River (Chaney and Sather-Blair 1985a). Martin and Ablin-Stone (1986) estimated a net loss of 9,620 HU. The mitigation plan (Meuleman et al. 1987) listed the proposed Hill City Marsh (Camas Prairie) as a high-priority area, and the Wildlife Caucus ranked the Camas Prairie as a regional, high-priority area in 1993. Implementation has been on-going since 1993. A draft EA almost was released for public review but was abandoned when the Wildlife Mitigation EIS was released (BPA 1997). Progress reports have been submitted to BPA since 1994 and now are combined within the Southern Idaho Wildlife Mitigation progress reports.

An extensive public involvement effort has resulted in several landowners interested in the program. We have focused our efforts on the upper end of Camas Creek (in-kind, in-place), above the existing Centennial Marsh Wildlife Management Area. One 640-acre parcel has been appraised and negotiations with the landowner will resume in spring 1998. An adjacent parcel, approximately 1,500 acres, is expected to be appraised in spring 1998. These two parcels would protect an additional 4.5 miles of Camas Creek, approximately 2,140 acres (riparian, emergent wetland, and sagebrush-steppe), and provide an estimated 1,089 HU towards Anderson Ranch wildlife mitigation.

Black Canyon

Black Canyon Dam was completed in 1924, impacting 1,100 acres of wildlife habitat along the Payette River (Chaney and Sather-Blair 1985b). The impact assessment reported an estimated net loss of 2,230 HU (Martin and Ablin-Stone 1986). The mitigation plan was completed in 1987, with the Bruneau River project listed as the highest priority (Meuleman et al. 1987). The Black Canyon/Bruneau project was incorporated into the FWP in 1995. Implementation planning began in 1996, and mitigation actions are covered in the Wildlife Mitigation EIS (BPA 1997). Updates are

included in the Southern Idaho Wildlife Mitigation progress reports.

Currently, the top priority for Black Canyon wildlife mitigation is habitat protection in the Boise Foothills (in-kind, in-place), adjacent to the Boise Foothills WMA. Several other properties have been evaluated as potential mitigation sites, including several in the Bruneau River drainage. However, the Boise Foothills is a high-priority conservation area for protecting several rare plants, rare plant communities, and ever-shrinking shrub-steppe winter range (B. Moseley, IDFG, pers. comm.). The proximity to Boise makes protection an urgent and high-profile issue, and there is much support from citizens and city, county, and state governments. Discussions have been on-going about land exchanges and conservation easements since summer 1996.

Minidoka

Construction of Minidoka Dam was completed in 1909, impacting over 12,000 acres of wildlife habitat along the Snake River (Martin and Mehrhoff 1985). The impact assessment reported an estimated net loss of 5,374 HU (Martin and Meuleman 1989). The mitigation plan was completed in 1991, with the two preferred projects eing riparian/river protection and enhancement and the South Hills shrub-steppe protection and enhancement (Meuleman et al. 1991). Minidoka was incorporated into the FWP in 1996, and actions are covered under the Wildlife Mitigation EIS (BPA 1997). Updates are included in the Southern Idaho Wildlife Mitigation progress reports.

In summer 1998, we will begin to enhance riparian habitat at Cottonwood Wildlife Management Area (in-kind, off-site). We estimate enhancements will provide 653 HU.

Adaptive Management

The original process for implementing mitigation projects was cumbersome. Potential mitigation sites for Palisades, Minidoka, Anderson Ranch, and Black Canyon were identified many years ago by interagency teams of biologists, and as each project moved along individually, it was difficult to match up the highest-priority habitats, willing sellers, and adequate and timely funds. Out-year funds were unknown, so partnerships also were difficult to establish. In addition, the State of Idaho and the Shoshone-Bannock Tribes were not well coordinated.

Over the past few years, we have succeeded in stream-lining the process for wildlife mitigation in southern Idaho. The State of Idaho and the Shoshone-Bannock Tribes signed a Memorandum of Agreement in 1996 to coordinate mitigation throughout southern Idaho. Rather than establishing strictly “state” and “tribal” projects, the agreement established a larger portion of the budget for “common share” projects, in which the state and tribe work cooperatively to implement. In the same year, Palisades, Minidoka, Anderson Ranch, and Black Canyon mitigation implementation were combined under one project by the state and the Tribe, the Southern Idaho Wildlife Mitigation Project. The combination of four projects into one has allowed us to move funds around and take advantage of the highest-priority mitigation and partnership opportunities in southern Idaho. In FY 1998 alone, cost-effective partnerships have been developed with the Bureau of Land Management, the Rocky Mountain Elk Foundation, and the High

Country Resource Conservation and Development Area.

In 1997, the State of Idaho and the Tribe signed individual MOA's with BPA to establish mitigation guidelines in southern Idaho and to ensure accountability and cost-effectiveness for all BPA funds being spent in southern Idaho. Finally, the Wildlife Mitigation EIS (BPA 1997) also was completed in 1997.

All of these activites have provided a solid foundation for continued successful mitigation implementation in southern Idaho over the next several years. While the original list of potential mitigation sites still guides our activities, we also are taking advantage of new conservation site-selection information (Jankovsky-Jones 1997*a* and *b*, B. Moseley, IDFG, pers. comm.). We also are dove-tailing with other regional efforts, including the Interior Columbia Basin Management Plan (USFS 1996), U. S. Bureau of Reclamation's Snake River Resources Review, and upcoming FERC relicensing of Idaho Power Company hydroelectric facilities.

e. Methods.

We have used a variety of scientific principles to select focus areas as mitigation projects. Potential mitigation sites in southern Idaho were initially prioritized by interagency teams of biologists in the mid 1980's, who considered biological significance, applicable references (Boccard 1980), in-place/in-kind possibilities, and juxtaposition to other management/protected areas. Since then, we have incorporated contemporary conservation site planning in Idaho, including wetland conservation strategies, (Jankovsky-Jones 1997*a,b*), GAP analysis of vegetation and conservation status in Idaho (Kiester et al. 1996, Caicco et al. 1995, Scott et al. 1993). In addition, The Nature Conservancy and IDFG have initiated a process to identify biodiversity conservation reserves in the Columbia Plateau ecoregion using GAP cover types as coarse filter targets (B. Moseley, IDFG, pers. com.).

Project implementation will be consistent with the 8-step process outlined in the Wildlife Mitigation EIS (BPA 1997). When a site-specific parcel has been identified within a focus area, the respective working group (e.g., Palisades Working Group) ranks the parcel with the CBFWA regional criteria to ensure regional wildlife program standards are met. Upon concensus by the working group and agreement between the state and Tribes, we pursue the acquisition, conservation easement, or enhancement of existing public lands. A baseline HEP is conducted immediately and an appropriate number of HU are credited. A management plan including a desired future condition is prepared. Habitats are enhanced to maximize HU using methods consistent with those outlined in the Wildlife Mitigation EIS (BPA 1997). Progress will be monitored by measuring standardized target species habitat variables from HEP models (USFWS 1980) and compared to baseline measured at the time of acquisition. Animal population trends also will be monitored to indicate long-term species-habitat relationships.

Public involvement is essential for a successful mitigation program. Although public involvement efforts for Palisades, Anderson Ranch, Minidoka, and Black Canyon each

have taken on lives of their own, we generally have followed the principles of Systematic Development of Informed Consent (Bleiker and Bleiker 1997). Interagency teams of biologists work together with local governments, non-governmental organizations, and interested citizens to build and maintain productive relationships.

f. Facilities and equipment.

Existing equipment will be used when possible. Enhancing and maintaning existing Palisades mitigation sites will require pick-ups, sprayers, fencing equipment, front-end loaders, tractors, tree and shrub planters, hand tools, etc. In FY 1999, most of this equipment will come from the existing inventory of the IDFG, the Shoshone-Bannock Tribes, or the BLM. Additional equipment may be needed as existing equipment wears out, but costs are expected to be low.

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Meuleman, G. A., H. J. Hansen, and R. C. Martin. 1987. Wildlife protection, mitigation, and enhancement plans: Anderson Ranch and Black Canyon Facilities. Proj. 86-73. Bonneville Power Administration, Division of Wildlife, Portland, Oregon.

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Scott, J. M., F. Davis, B. Csuti, R. Noss, B. Butterfield, C. Groves, H. Anderson, S. Caicco, F. D'Erchia, T. C. Edwards, Jr., J. Ullman, and R. G. Wright. 1993. Gap analysis: A geographic approach to the protection of biological diversity. Wildl. Monogr. 123.

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Section 8. Relationships to other projects

The Shoshone-Bannock Tribes and IDFG have signed a cooperative wildlife mitigation agreement to facilitate implementation of the wildlife mitigation program in southern Idaho. We currently are working in partnership with several other agencies and organizations to implement mitigation projects. The BLM has been a particluarly important partner. They have provided countless manhours, in addition to pre-acquisition costs on four mitigation parcels and closing costs on two. We have implemented a cooperative noxious weed, biological control project with the NRCS and the High

Country Resource Conservation and Development Area. The Teton Valley Land Trust provided time and expertise to the development of an 800 acre conservation easement along the South Fork. The Wood River Land Trust has helped Camas Prairie landowners explore creative acquisition options. We recently completed a three-way purchase of 2135 acres of important shrub-steppe habitat near the Tex Creek WMA, with 1/3 of the funding provided by the Rocky Mountain Elk Foundation, 1/3 by the Department, and 1/3 with BPA mitigation funds. We have also worked closely with the Treasure Valley Land Trust and local Soil Conservation Districts. We are exploring additional partnerships with The Nature Conservancy, Idaho Soil Conservation Commission, Henrys Fork Foundation, Ducks Unlimited, Pheasants Forever, Idaho Power Company, and local counties.

During this project period, we will coordinate closely with the Snake River Native Salmonid Assessment Project (FWP # 9800200) to identify areas in southern Idaho where cost effeciencies can be realized by combining resident fish and wildlife program activities. We also are dove-tailing with other regional efforts, including the Interior Columbia Basin Ecosystem Management Project (USFS 1996), U. S. Bureau of Reclamation's Snake River Resources Review, and upcoming FERC relicensing of Idaho Power Company hydroelectric facilities.

Section 9. Key personnel

Key Personnel in Southern Idaho Wildlife Mitigation Project Implementation

Shoshone-Bannock Tribes

Chad Colter - Fisheries Manager - .25 FTE - Overall project coordination, including development of

Wildlife Mitigation Biologist - To be filled - Prepare management plans, negotiate with landowners, coo

Idaho Department of Fish and Game
Jerome Hansen - Interstate Resource Data Manager - .50 FTE-Overall project coordination, in

Michele Beucler - Wildlife Mitigation Specialist - 1.0 FTE - Prepare management plans, negotiate with l

Sr. Wildlife Technician - To be filled - Conduct enhancements, conduct O&M activities, prepare reports.

Resumes

H. JEROME HANSEN

Education:
University of West Virginia - M.S. in Wildlife Management - 1982
Thesis - *Wildlife Use of Spring Seeps in Northern West Virginia*
Emporia State University - Emporia, KS. - B.S. in Environmental Biology - 1979

Current Employer and Responsiblities:
Idaho Department of Fish and Game
Interstate Resource Data Manager - 2/1993 to Present
Coordination of the Department's wildlife mitigation and StreamNet programs. Terrestrial Work Group Chair on Idaho Power FERC relicensing activites.
Wildlife Mitigation Specialist - 6/1986 to 2/1993
Developed wildlife impact assessments and mitigation plans. Evaluated potential impacts of "salmon flow augmentation water" on resident fish and wildlife.

Previous Employment
Kansas Fish & Game - District Wildlife Biologist 9/1985 to 5/1986.
U.S. Fish and Wildife Service - Biological Technician - 4/1985 to 9/1985
Montana Cooperative Wildlife Research Unit - Wildlife Research - 6/1983 to 3/1985
Kansas Fish & Game - Research Assistant - 9/1982 to 5/1983

Certification
Completed Habitat Evaluation Procedure (HEP) training in 1985.

Expertise
Evaluation of land use activities, including hydro, on fish and wildlife resources, development of mitigation and management plans, habitat improvement techniques, fish and wildlife data development and delivery.

Publications
Hansen, H.J. 1983. An evaluation of herbaceous and woody plantings on Marion Wildlife Area. Final Res. Rept., Kansas Fish and Game. Pratt, KS. 59 p.

Hansen, H.J., and R.C. Martin. 1989. Phase II, Wildlife protection, mitigation, and enhancement plan, Dworshak Reservoir. Final rept., IDFG. BPA Proj. 87-111.107 p.

Martin, R.C., and H. J. Hansen. 1986. Wildlife protection, mitigation, and enhancement plan, Palisades project. Final rept., IDFG. BPA Proj. No. 86-73. 109 p.

Meuleman, G.A., H.J. Hansen, and R.C. Martin. 1987. Wildlife protection, mitigation, and enhancement plans for Anderson Ranch and Black Canyon facililities. Final rept. IDFG. BPA Proj. No. 86-73. 95 p.

Riggin, S.H., and H.J. Hansen. 1992. Phase I water rental pilot project: Snake River resident fish and wildlife resources and management recommendations. Final rept. IDFG. BPA Proj. No. 91-067

Activities
Currently serve as Secretary/Treasurer of the Northwest Section of the Wildlife Society.

MICHELE BEUCLER

Education:
Texas A&M University - M.S. in Wildlife and Fisheries Sciences - 1995
Thesis - *The Impacts of Mining on the Habitat Ecology of Raccoons in East-central Texas*

Unity College - Unity, Maine - B.S. in Environmental Science/Wildlife - 1988

Current Employer and Responsiblities:
Idaho Department of Fish and Game
Wildlife Mitigation Specialist - 8/1993 to Present
Implement wildlife mitigation in southern Idaho.
Statewide coordination of Responsive Management program.

Previous Employment
Texas A&M University - Texas Utilities Fellow, Research Assistant 8/1989 to 7/1993.
U.S. Bureau of Land Management - Field Assistant - 5/1989 to 8/1989
Southside Animal Hospital - Veterinary Assistant - 2/1989 to 5/1989
Institute of Ecosystem Studies - Research Assistant - 5/1988 to 12/1988
Bovid Conservation and Ecology Project - Field Assistant - 5/1985 to 8/1985

Certification
Completed Habitat Evaluation Procedure (HEP) training in 1993.

Expertise
I have experience with evaluating impacts of large-scale land uses on vegetation and wildlife and recommending methods to improve reclamation/restoration. In addition to technical skills in ecology, I have received professional training in public involvement, strategic planning, and performance measures.

Publications

Beucler, M., and D. E. Toweill. 1995. What's it worth? The contribution of fish and wildlife to Idaho's economy. Idaho Wildlife. Vol. 15 Issue 4, pp. 11-13.

Beucler, M., D. E. Toweill, T. McArthur, and C. L. Groen. 1994. Newcomers to Idaho: perceptions, reality, and management implications. Proc. Western Assoc. of Fish and Wildlife Agencies.

Activities
I am serving as program chair for the 1998 Annual National Conference for the Organization of Wildlife Planners.

Section 10. Information/technology transfer

Information will be included in progress reports, management plans, annual monitoring reports, etc. Project personnel will participate in annual CBFWA public meetings.

Information on long-term species/habitat relationships will be compiled and presented at professional Wildlife Society or other appropriate symposiums. Species/habitat relationship data will also be provided to state GAP personnel, to help validate modelled species distributions. Information on habitat response to a variety of management techniques, including biological control of noxious weeds, will be provided to other wildlife and land managers in the region, through publications, presentations. Appropriate standardized project data will also be provided to Idaho StreamNet personnel.